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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,423	07/06/2001	John E. Sell	NUFO005	4970

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EXAMINER

VY, HUNG T

ART UNIT PAPER NUMBER

2828

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,423

Applicant(s)

SELL ET AL.

Examiner

Hung T Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21-28 and 30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21-28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

1. In response to the communications filed on 07/02/2002, claims 1-19, 21-28, and 30-38 are pending in this application as a result of the cancellation of claims 20 and 29.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19, 21-28, and 30-38 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 33, the phrase "activated carbon drain" renders the claim indefinite because it is unclear what is activated carbon drain. It is not clear whether it is a drain or absorb. Further, the phrase "inert atmosphere" renders the claim indefinite because it is not clear what is inert atmosphere.

Regarding claim 2, the phrase "gain medium emitting a beam" renders the claim indefinite because it is not clear how gain medium can emit a beam, the gain medium is not laser. Further, the phrase "inert atmosphere" renders the claim indefinite because it is not clear what is inert atmosphere.

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Regarding claim 22, the phrase " vacuum baking" renders the claim indefinite because it is not clear what is vacuum baking. Further, the phrase "inert atmosphere" renders the claim indefinite because it is not clear what is inert atmosphere.

Claims 2-13, 15-19, 21, 23-28, 30-32, and 34-38 depend from rejected claim 1, 14, 22 and 33 thereby render these dependent claims indefinite.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-13, and 33-38 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Yoshikawa et al., U.S. Patent No. 5,497,937.

Regarding claims 1-3, 11, 33 -38, Flanders discloses a laser apparatus comprising an external cavity laser (See column 3, line 55) and laser source therein (422) (See fig.10), and a hermetically sealable container (110) (see column 3, line 51-52) configured to enclose external cavity laser. Flanders discloses the hermetically sealable container is hermetic and constructed from a mechanically and temperature stable substance (See column 3, line 50-56) and external cavity laser is tunable (see

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column 1, line 55-57), But Flanders does not disclose an activated carbon drain.

However, Yoshikawa et al. discloses activated carbon drain positioned within said hermetically sealable container to absorb outgassing compounds (see column 2, line 5-60 and column 7, line 51-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Flandres to have activated carbon drain as taught by Yoshikawa et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Regarding claims 12-13, it is inherent that the apparatus, wherein said insert atmosphere is a gas in order to improve the stable and long life for device. Further, Flanders disclose an optical fiber (112) extending into said hermetically sealable container (see fig. 1) and positioned to receive optical output from said external cavity, and a fiber feed through, configured to hermitically seal said optical fiber (see fig. 1).

Regarding claims 4-9, Flandres discloses the apparatus, wherein said external cavity laser in hermetically sealable container (110), a gain medium (422) having a first and second output facets, second output facet having anti-reflective coating thereon (See column 6, line 61-67 and column 7, line 1-7), external cavity laser comprises a grid generator (716) and a tuning assembly operatively coupled to said channel selector (714) and configured to adjust said channel selector (See fig. 10).

4. Claims 14-19, 21-28, and 30-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Wieser et al., U.S. Patent No. 6,282,222.

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Regarding claims 14-19, Flandres discloses the apparatus, wherein said external cavity laser in hermetically sealable container (110), a gain medium (422) having a first and second output facets, second output facet having anti-reflective coating thereon (See column 6, line 61-67 and column 7, line 1-7), external cavity laser comprises a grid generator (716) and a tuning assembly operatively coupled to said channel selector (714) and configured to adjust said channel selector (See fig. 10), but Flandres does not disclose a moisture trap. However, Wieser et al. discloses a moisture trap (38) positioned within said hermetically sealed container to absorb moisture within said hermetically sealed container (See Fig. 1 and column 7, line 20-24 or column 8, line 30-42), vacuum baking at least one outgassing component of said laser prior to said hermitically sealing (see column 10, line 38-43).

Regarding claim 21, Wieser et al. discloses the laser apparatus, wherein said inert atmosphere is gas selected from Ne, Ar Kr, Xe (See abstract)

With respect to claims 22-28, and 30-32, the methods for fabricating a laser are considered as product by process steps.

5. Claim 10 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Flanders, U.S. patent No. 6,366,592 in view of Yoshikawa et al., U.S. Patent No. 5,497,937 and Wieser et al., U.S. Patent No. 6,282,222.

Regarding claim 10, Wieser et al. discloses apparatus wherein, the activated carbon drain to absorb outgassing compounds that occur during operation of the laser source (see column 2, line 5-60 and column 7, line 51-50).

Response to Arguments

6. Applicant's arguments with respect to claims 1-19, 21-28,30-38 have been considered but are moot in view of the new ground(s) of rejection.

Citation of Pertinent References

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Nakagawa et al. discloses Oxygen Absorption Composition, U.S. Patent No. 6,004,477.

The patent to Wong discloses Passive and Active Infrared Analysis Gas Sensor and Applicable Multichannel Detector Assemblies, U.S. Patent No. 5,721,430.

The patent to Mizushima et al. discloses Fabrication of Electronic components Having a Hollow Package Structure with Ceramic Lid , U.S. Patent No. 6,165,816.

The Pub. to Ogura et al. discloses Light emitting Device, U.S. Pub. No.2002/0070663.

Conclusion

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8. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759.

The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



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Hung T. Vy
Art Unit 2828
July 25, 2003